

### REMARKS

This responds to the Advisory Action mailed on December 17, 2008. Applicant has filed a RCE. A petition for a one month extension time has been requested.

Claims 1 – 13 remain active in this application. Claims 14 – 23 have been previously canceled. Independent claims 1 and 7 have been amended. A grammatical correction has been made to claim 10.

In the Final Office Action, all the claims were rejected under 35 U.S.C. § 103(a) over Eggleton et al. (USP 6,438,277) in view of Rabiei et al. (P. Rabiei, W.H. Steir, C. Zhang, L.R. Dalton, "Polymer Micro-Ring Filters and Modulators", J. Lightwave Tech., Vol.20, No. 11, November 2002, pp. 1968-1975), some claims were rejected in further view of additional references. In Response thereto, Applicant submitted a Rule 131 Declaration to remove the Rabiei et al. reference.

In the Advisory Action, the Examiner has entered the Rule 131 Declaration, but denied Allowance of the application. The Examiner cited a lack of Kelvin probe limitations in the independent claims and expressed concern that the logic device/logic means was not specifically addressed in the Rule 131 Declaration previously submitted.

In the accompanying Preliminary Amendment, Applicant addresses the claim limitation concerns by adding the use of a Kelvin probe to the independent claims. Separately, Applicant submits a Supplemental Rule 131 Declaration to address the Examiner's concerns regarding support for logic devices/means dating to the time of the invention.

The invention is a feedback controlled photonic frequency selection circuit capable of selecting a particular frequency of light in a deliberate stepped manner. The Examiner admits that Eggleton "...does not disclose a photonic circuit being capable of selecting a particular frequency of light in a deliberate stepped manner." The recitation of Rabiei et al. was used in each and every one of the obvious rejections as a secondary

reference in conjunction with Eggleton et al. and sometimes in view of further other references to show a thermally tuned resonator for adjusting its center wavelength. The Rabiei et al. publication only discloses a prototype of a steady state device where the temperature is controlled to pick off on frequency. There is no feedback loop shown. With removal of the Rabiei et al. reference the present application is allowable.

Applicant has addresses the Examiner's concern expressed in paragraph 11 of the Advisory Action by adding the limitation of a Kelvin probe to independent claims 1 and 7. Additionally a feedback loop limitation has been added.

Paragraph 13 of the Advisory Action has been address by a Supplemental Rule 131 Declaration. New paragraphs 7, 8 and 9 have been added to address the Examiner's concerns. Note that the inventors had envisioned a logic means as part of their invention for hosting a control algorithm to associate one or more frequencies of light with the temperature of a photonic resonator. (See the middle of the "Solution" section of the attached Invention Disclosure.) This logic means would include a memory and processor.

Likewise, a logic device having both a processor and memory would identify a temperature stored in said logic device, this temperature associated with a frequency stored in a memory so that specific frequencies of light may be selected in a controlled manner. This implementation was envisioned to be under microprocessor control. Using feedback, the photonic resonator can be driven to a predetermined temperature for precise, controlled, variable tuning for frequency selection all under microprocessor control. Please see "Abstract" and "Why is your solution better" sections of Invention Disclosure in the attached Supplemental Rule 131 Declaration.

Since all rejection, objections and requirement contained in the outstanding official action have been fully addressed, it is respectfully submitted that reconsideration of the present application be made. A notice of allowance is earnestly requested.

The examiner is invited to telephone the Applicant's attorney at (703) 867-8334 to facilitate prosecution of the application.

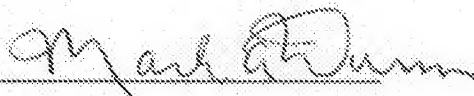
If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0130 on behalf of Customer No. 22,500.

Respectfully Submitted,

Dated: January 9, 2009

For: Customer No. 22500

By:



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